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| APPLICATION NO.                  | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|----------------------------------|-------------|----------------------|---------------------|------------------|
| 10/629,294                       | 07/29/2003  | Yoshiaki Okui        | NIS-14944           | 6443             |
| 40854                            | 7590        | 06/29/2004           | EXAMINER            |                  |
| RANKIN, HILL, PORTER & CLARK LLP |             |                      | COX, CASSANDRA F    |                  |
| 4080 ERIE STREET                 |             |                      | ART UNIT            |                  |
| WILLOUGHBY, OH 44094-7836        |             |                      | PAPER NUMBER        |                  |
|                                  |             |                      | 2816                |                  |

DATE MAILED: 06/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application N .

10/629,294

Applicant(s)

OKUI, YOSHIAKI

Examiner

Cassandra Cox

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 29 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-6 and 12 is/are allowed.
- 6) ☒ Claim(s) 7-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>07/29/03, 09/02/03, 01/07/04</u> . | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 7-11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 7 is indefinite because it is not clear to the examiner if the last two paragraphs of the claim refers to two separate determination circuits or if they refer to one determination circuit that has two separate functions. Claim 8 is indefinite because it is not clear to the examiner what the phrase "a first phase difference detection circuit (1') for phase difference as the first command signal" means. It appears to the examiner that the phrase is incomplete, there seems to be a section of the claim missing. Correction or clarification is required.

Claims 9-11 are also rejected due to the limitations of the base claim and any intervening claims.

### ***Allowable Subject Matter***

3. Claims 1-6 and 12 are allowed.
4. Claims 7 and 9-11 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

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5. Claim 8 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action.

6. The following is a statement of reasons for the indication of allowable subject matter: Claims 8-11 would be allowable because the closest prior art of record fails to disclose a circuit as shown in Figure 6 wherein the circuit comprises the combination of a three-to-two phase transformation circuit (15), a first sine-wave and cosine-wave signal generation circuit (2'), a first phase difference detection circuit (1'), a second sine-wave and cosine-wave signal generation circuit (9'), a frequency difference detection circuit (4'), a second phase difference detection circuit (3'), an adder circuit (5), and a frequency variation rate limiter circuit (8) in combination with the rest of the limitations of the base claims and any intervening claims.

7. The following is an examiner's statement of reasons for allowance: Claims 1-3 are allowed because the closest prior art of record fails to disclose a circuit as shown in Figure 1 wherein the circuit comprises the combination of a first sine-wave signal generation circuit (2), a first phase difference detection circuit (1), a second sine-wave signal generation circuit (9), a frequency difference detection circuit (4), a second phase difference detection circuit (3), an adder circuit (5), and a frequency variation rate limiter circuit (8) in combination with the rest of the limitations of the base claims and any intervening claims. Claims 4-6 are allowed because the closest prior art of record fails to disclose a circuit as shown in Figure 7 wherein the circuit comprises the combination of a first sine-

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wave and cosine-wave signal generation circuit (2'), a first phase difference detection circuit (1''), a second sine-wave and cosine-wave signal generation circuit (9'), a frequency difference detection circuit (4'), a second phase difference detection circuit (3'), an adder circuit (5), and a frequency variation rate limiter circuit (8) in combination with the rest of the limitations of the base claims and any intervening claims. Claim 12 is allowed because the closest prior art of record fails to disclose a circuit as shown in Figure 5 wherein the circuit comprises the combination of a sine-wave and cosine-wave signal generation circuit (2') and an input frequency detection circuit (14a) in combination with the rest of the limitations of the base claims and any intervening claims.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***Conclusion***

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cassandra Cox whose telephone number is 571-272-1741. The examiner can normally be reached on Monday-Thursday from 8:00 AM to 5:30 PM and on.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Callahan can be reached on 571-272-1740. The

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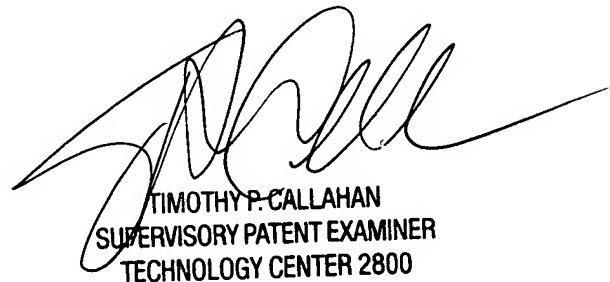
fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

CC



June 23, 2004



TIMOTHY P. CALLAHAN  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2800